

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of:

VLADIMIR GRUSHIN ET AL.

CASE NO.: PE0649 ~~US-DIV7~~

APPLICATION NO.: UNKNOWN

CONFIRMATION NO.: UNKNOWN

GROUP ART UNIT: UNKNOWN

EXAMINER: UNKNOWN

FILED: CONCURRENTLY HERewith

FOR: ELECTROLUMINESCENT IRIIDIUM COMPOUNDS WITH FLUORINATED  
PHENYLPYRIDINES, PHENYLPYRIMIDINES, AND PHENYLQUINOLINES AND  
DEVICES MADE WITH SUCH COMPOUNDS

**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In compliance with 37 CFR 1.97 and 1.98, Applicants bring to the attention of the U.S. Patent and Trademark Office information that may be helpful in the examination of the above-identified patent application. All of the information is listed on attached Forms PTO/SB/08A, PTO/SB/08B, and PTO-892.

Benefit of the earlier filing dates of U.S. Patent Application Nos. 10/366,295 filed February 13, 2003 and 09/879,014 filed June 12, 2001 are claimed under 35 U.S.C. 120 for the above-referenced application and information cited in the priority applications is not supplied with this Information Disclosure Statement.

Should any fee be required in connection with the filing of this Information Disclosure Statement, please charge such fee to Deposit Account No. 04-1928 (E. I. du Pont de Nemours and Company).

Respectfully submitted,



MARY ANN CAPRIA

Attorney for Applicants

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Dated: 11/24/2003

Enclosures

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Sheet	1	of	2
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**Complete if Known**

Application Number	09/879,014
Filing Date	JUNE 12, 2001
First Named Inventor	VLADIMIR GRUSHIN ET AL.
Group Art Unit	2913
Examiner Name	KIELIN, ERIK J
Attorney Docket Number	PE0649 US NA

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**Examiner  
Signature**

Date  
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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the tow-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols asindicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		DJUROVICH, PETER I. ET AL., Ir(III) Cyclometalated Complexes As Efficient Phosphorescent Emitters in Polymer Blend and Organic LEDs, Polymer Preprints, 2000, 770-771, 41(1)	<input type="checkbox"/>
		CHATANI, NAOTO ET AL., Ru3(CO)12-Catalyzed Reaction of Pyridylbenzenes with Carbon Monoxide and Olefins. Carbonylation at a C-H Bond in the Benzene Ring, J. Org. Chem., 1997, 2604-2610, 62, American Chemical Society	<input type="checkbox"/>
		GOSMINI, CORINNE ET AL., Electrosynthesis of functionalized 2-arylpyridines from functionalized aryl and pyridine halides catalyzed by nickel bromide 2,2'-bipyridine complex, Tetrahedron Letters, 2000, 5039-5042, 41, Elsevier Science Ltd.	<input type="checkbox"/>
		CACCHI, SANDRO ET AL., The Palladium-Catalyzed Transfer Hydrogenation/Heterocyclization of B-(2-Aminophenyl)-a,B-ynones. An Approach to 2-Aryl- and 2-Vinylquinolines, Synlett, 1999, 401-404, No. 4, Thieme Stuttgart, New York	<input type="checkbox"/>
		BALDO, M. A. ET AL., Very high-efficiency green organic light-emitting devices based on electrophosphorescence, Applied Physics Letters, July 5, 1999, 4-6, 75(1) American Institute of Physics	<input type="checkbox"/>
		BALDO, M. A. ET AL., High-efficiency fluorescent organic light-emitting devices using a phosphorescent sensitizer, Nature, February 17, 2000, 750-753, 403, Macmillan Magazines Ltd.	<input type="checkbox"/>
		WANG, YUE ET AL., (Hydroxyphenyl)pyridine derivative, its metal complexes and application as electroluminescence material, Chemical Abstracts Service, March 1, 2000, Database No. 133:315395	<input type="checkbox"/>
		DEDEIAN K. ET AL., A New Synthetic Route to the Preparation of a Series of Strong Photoreducing Agents: fac Tris-Ortho-Metalated Complexes of Iridium(III) with Substituted 2-Phenylpyridines, Inorg. Chem., 1991, 1685-1687, 30(8), American Chemical Society	<input type="checkbox"/>
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Application Number	09/879,014
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First Named Inventor	VLADIMIR GRUSHIN ET AL.
Group Art Unit	2811
Examiner Name	UNKNOWN
Attorney Docket Number	PE0649 US NA

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## FOREIGN PATENT DOCUMENTS

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Sheet 2 of 2

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First Named Inventor	VLADIMIR GRUSHIN ET AL.
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Examiner Name	UNKNOWN
Attorney Docket Number	PE0649 US NA

### OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		BALDO, M.A. et al., High-efficiency fluorescent organic light-emitting devices using a phosphorescent sensitizer, Nature, February 17, 2000, 750-753, Vol. 403	
		DJUROVICH, PETER I. et al., Ir(III) Cyclometalated Complexes as Efficient Phosphorescent Emitters in Polymer Blend and Organic LEDs, Polymer Reprints, 2000, 770-771, 41(1)	
		BALDO, M.A. et al., Very high-efficiency green organic light-emitting devices based on electrophoresence, Applied Physics Letters, July 5, 1999, 4-6, 75(1), American Institute of Physics	
		LOHSE, OLIVIER, et al., The Palladium Catalysed Suzuki Coupling of 2- and 4-Chloropyridines, Synlett, 1999, 45-48, No. 1, Thieme Stuttgart, New York	
		BALDO, M.A. et al., Highly efficient phosphorescent emission from organic electroluminescent devices, Nature, September 10, 1998, 151-154, Vol 395	
		DEDEIAN, K. et al, A New Synthetic Route to the Preparation of a Series of Strong Photoreducing Agents: fac Tris-Ortho-Metalated Complexes of Iridium (III) with Substituted 2-Phenylpyridines, Inorganic Chemistry, 1991, 1685-1687, 30(8)	

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<b>Notice of References Cited</b>	Application/Control No. 09/879,014	Applicant(s)/Patent Under Reexamination GRUSHIN ET AL.	
	Examiner Erik Kielin	Art Unit 2813	Page 1 of 1

#### U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-3,718,488	02-1973	Trofimenko et al.	106/1.28
	B	US-2002/0064681 A1	09-2001	Takiguchi et al.	428/690
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

#### FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

#### NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
X	U	Thompson et al. "Ir(III) cyclometalated complexes as efficient phosphorescent emitters in polymer blend organic LEDs" Polymer Preprints 41(1), 2000, pp. 770-771.
X	V	Dedeian et al. "A new synthetic route to the preparation of a series of strong photoreducing agents: fac tris-ortho-metalated complexes of iridium(III) with substituted 2-phenylpyridines" Inorganic Chemistry, Vol. 30, 1991, 1685-1687.
	W	
	X	

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